

# Improving Water Quality In the Sacramento Valley

Annual  
Water Quality  
Summary  
May 2015



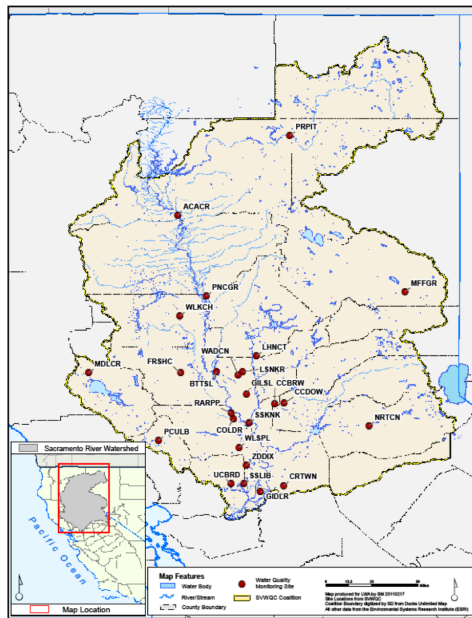
*For more than a decade the Sacramento Valley Water Quality Coalition (Coalition) has brought together farmers, ranchers, wetlands managers, conservation organizations, water resources managers, resource conservation districts and Agricultural Commissioners to implement a “Regional Plan for Action” that focuses on improving surface water quality. The Regional Plan for Action recognizes that good water quality and resource management benefit the economic and ecological sustainability of this region that is essential to California’s success and prosperity. The efficient and effective management of water resources in the Sacramento Valley is vital to the cities and rural communities who rely on clean drinking water, the waterfowl along the Pacific Flyway, fish habitat in the rivers, and the aesthetic and recreational values of our upper watersheds.*

## New Requirements for Irrigated Lands Program in 2015

There are new requirements for owners and operators of irrigated lands in the Sacramento Valley adopted by the Central Valley Regional Water Quality Control Board (Regional Water Board) on March 12, 2014 that will begin to take form in 2015. The new requirements, known as a Waste Discharge Requirements (WDR) Order, include expansion of the current regulation to include groundwater quality. As a result, there will be additional programmatic and reporting requirements for the Coalition on behalf of its members, including the Groundwater Quality Assessment Report (GAR) mentioned below, a Sediment and Erosion Control Assessment Report, a comprehensive Groundwater Quality Management

Plan and a groundwater quality trend monitoring plan.

Like members of the other ten water quality coalitions throughout the Central Valley, owners and operators of irrigated lands in the Sacramento Valley have new requirements, including completion of a basic farm evaluation template and a nitrogen management plan. These reports are due annually. As a result of efforts by all the water quality coalitions throughout the Central Valley, grower specific information will be removed from these reports when they are aggregated by the Coalition and submitted at the township scale to the Regional Water Board later this summer.



# Annual Monitoring Reports Highlight Water Quality Results

Annually, as part of the Irrigated Lands Regulatory Program (ILRP), Larry Walker Associates, an environmental engineering firm with more than 30 years experience in California water quality, conducts surface water quality monitoring and reports the results to the Regional Water Board for the Coalition. For the two year period from October 2012 through September 2014, the Coalition conducted a comprehensive assessment of surface water quality conditions. Similar to the results reported in previous *Coalition Annual Monitoring Reports (AMR)*, the results continue to indicate there are “no major water quality problems with agricultural and managed wetlands discharges to the Sacramento River Basin.” As in past years, more than 97% of all pesticide analyses performed by the Coalition were below detection.

## Water Quality Results in the Sacramento Valley

The Coalition submits “Exceedance Reports” to the Central Valley Regional Water Quality Control Board when monthly sampling results exceed water quality objectives. Where multiple exceedances occur, the Coalition and its Subwatershed Groups have management plans to address the exceedances as detailed below. This 2014 Annual Water Quality Summary provides the results of sampling in 2013 and 2014; listed below are the number of exceedances compared to the number of samples for the two year period, October 2012—September 2014. Monitoring sites shaded in green are sites representative of agriculture grown in these watersheds, and have a greater likelihood to identify agriculturally related materials in surface water quality versus materials discharged by non-agricultural sources. For more information visit our webpage at [www.svwqc.org](http://www.svwqc.org).

Subwatershed	Waterbody	Registered Pesticides	Legacy Pesticides	Salinity (Conductivity, Boron)		Nitrogen	Pathogens	Dissolved Oxygen	pH
Butte Yuba Sutter	Butte Slough	-	-	0/8	-	-	-	4/8	0/8
Butte Yuba Sutter	Gilsizer Slough	1/129	1/68	4/15	-	-	-	5/15	3/15
Butte Yuba Sutter	Lower Honcut Creek	0/102	3/34	0/23	0/34	4/23	4/23	0/23	0/23
Butte Yuba Sutter	Lower Snake River	0/132	0/34	1/23	0/34	6/23	1/23	0/23	0/23
Butte Yuba Sutter	Pine Creek	2/119	0/34	1/19	0/30	7/19	10/19	0/19	0/19
Butte Yuba Sutter	Sacramento Slough	0/93	0/34	0/20	0/34	0/23	2/20	0/20	0/20
Colusa Glenn	Colusa Drain	1/132	0/34	11/18	0/32	0/22	6/18	0/18	0/18
Colusa Glenn	Freshwater Creek	0/83	0/68	8/20	0/29	6/20	0/20	0/20	0/20
Colusa Glenn	Lurline Creek	0/4	0/68	3/8	-	-	0/8	1/8	1/8
Colusa Glenn	Rough and Ready PP	0/68	0/68	5/12	-	-	3/12	0/12	0/12
Colusa Glenn	Stone Corral Creek	-	-	3/8	-	-	0/8	0/8	0/8
Colusa Glenn	Stony Creek	0/4	-	0/9	-	-	0/9	1/9	1/9
Colusa Glenn	Walker Creek	0/113	0/34	2/22	1/30	8/20	7/22	2/22	2/22
El Dorado	Coon Hollow Creek	0/4	4/68	0/4	-	-	0/4	0/4	0/4
El Dorado	North Canyon Creek	0/4	0/68	0/4	-	-	0/4	0/4	0/4
Lake County	McGaugh Slough	-	-	5/13	1/6	-	2/13	1/13	1/13
Lake County	Middle Creek	0/13	0/34	0/16	0/21	1/14	5/16	1/16	1/16
NECWA	Fall River	-	-	0/2	-	-	0/2	2/2	2/2
NECWA	Pit River	-	-	0/6	0/4	1/4	1/6	0/6	0/6
PNSSNS	Coon Creek (Brewer Rd.)	0/10	-	0/14	0/24	4/16	2/13	0/14	0/14
PNSSNS	Coon Creek (Stripin Rd.)	0/81	-	0/9	-	-	6/8	0/9	0/9
Sacramento Amador	Cosumnes River	0/48	0/48	0/14	0/14	2/10	0/14	0/14	0/14
Sacramento Amador	Dry Creek	-	-	0/7	-	-	0/7	0/7	0/7
Sacramento Amador	Grand Island Drain	2/192	4/85	4/24	1/35	3/24	7/24	1/24	1/24
Sacramento Amador	Laguna Creek	-	-	0/9	-	-	6/9	0/9	0/9
Shasta Tehama	Anderson Creek	0/42	0/34	0/22	0/32	12/23	2/22	0/22	0/22
Shasta Tehama	Coyote Creek	-	-	0/8	-	-	7/8	1/8	1/8
Solano/Dixon RCD	Shag Slough	0/127	0/34	3/23, 0/4	0/26	1/20	0/23	0/23	0/23
Solano/Dixon RCD	Ulatis Creek	0/176	0/34	11/22, 0/4	2/33	6/22	4/22	0/22	0/22
Solano/Dixon RCD	Z Drain	-	-	7/14	-	-	0/14	0/14	0/14
UFRWG	Middle Fork Feather River	-	-	-	0/6	0/4	-	-	-
Yolo Co Frm Bureau	Cache Creek	0/8	-	5/8	-	-	2/8	1/8	1/8
Yolo Co Frm Bureau	Tule Canal	-	-	7/8, 7/8	-	-	1/8	0/8	0/8
Yolo Co Frm Bureau	Willow Slough	1/154	0/68	16/21, 7/7	0/30	5/20	2/21	2/21	2/21
<b>Totals (exceedances/total analyses)</b>		<b>7/1838</b>	<b>12/949</b>	<b>96/445, 14/23</b>	<b>5/454</b>	<b>55/307</b>	<b>85/443</b>	<b>16/445</b>	

# Sustainable Agricultural Water Quality Management for the Next Decade

In 2014 the Coalition embarked on a new chapter of stewardship initiatives designed to promote the sustainable use of groundwater resources. As with the original Regional Plan for Action, the groundwater resource initiative is driven by the desire to assure sustainable groundwater resources and direct our future rather than have it driven by legislative fiat or overreaching regulatory proposals by those not familiar with the Sacramento Valley.

While the drought and the desire for more sustainable management of groundwater is the California Legislature's legacy of 2014, the Coalition is committed to consistent year-after-year safeguarding of water quality as evident by the water quality results detailed in this report. The owners and operators of irrigated lands in the Sacramento River Watershed are not simply responding to increasing regulatory responses to

mitigate impacts to groundwater from agriculture, they are leading the way to find solutions that include increased use of management and cultural practices to protect surface and groundwater quality.

For over five years the Central Valley Regional Water Board has been developing groundwater quality policy and requirements for irrigated lands. Whether it is the new Waste Discharge Requirements (WDR) imposed on water quality coalitions throughout the Central Valley or the emerging Salt and Nitrate Basin Plan amendments being crafted by a diverse group of dischargers, including agriculture, the challenges of the future need to be met by a proactive concerted effort by farmers and ranchers to protect water quality within a reasonable regulatory framework.

## Groundwater Quality Assessment— A Foundation To Advance Sustainability

Work wrapped up in the summer of 2014 on one of the crucial documents for determining the extent and scope of actions that should be initiated in the Sacramento River Watershed to advance groundwater quality sustainability.

The groundwater quality and vulnerability analysis presented in the Groundwater Quality Assessment Report (GAR) prepared by CH2M Hill:

- ◆ Enables a big-picture, initial regional assessment of groundwater quality and vulnerability of irrigated agricultural lands in the Sacramento River Watershed that acknowledges the range of diversity in agricultural practices within the valley by accounting for numerous sources of readily available data;
- ◆ Provides a framework for long-term sustainable farming in the Sacramento River Watershed with an emphasis on groundwater quality protection by stewardship of the land; and
- ◆ Establishes an initial framework to help prioritize groundwater monitoring activities.

The GAR provides a rigorous review of regional settings of irrigated farmlands in the Sacramento River Watershed, including agriculture practices, soils and hydrogeology, and existing groundwater

monitoring networks and data. In this manner, the GAR serves as an initial framework document that establishes the technical basis for a program of groundwater quality monitoring and actions to advance groundwater quality sustainability.

Limited areas of groundwater quality vulnerability were identified, primarily based on the occurrence of naturally occurring sources of groundwater salinity and use of groundwater for irrigation supply. In general, nitrate concentrations are very low in the groundwater of the Sacramento River Watershed, with the exception of a few localized high-concentration areas.

In those localized areas of high-concentration, NCWA and the Coalition, working with water managers and agronomists, will develop a plan of action with efficient and cost effective solutions. Some of the solutions will align with the Salt and Nitrate Basin Plan Amendment being developed in the Central Valley. The groundwater quality resource strategy being developed will include foundational actions that assess and characterize the current state of groundwater resources, prioritize and target areas where management practices by agricultural producers can best improve groundwater quality impacts from nutrients, surface water sediment movement and salinity; as well as document the implementation of practices necessary to achieve these objectives.



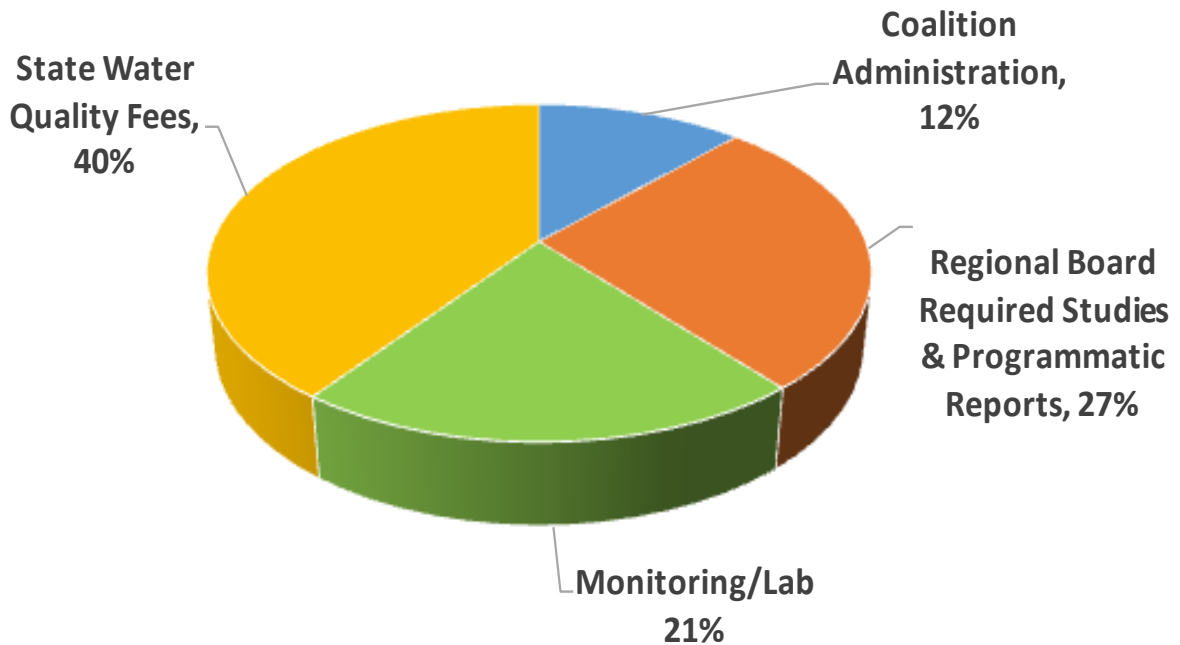
# Salt and Nitrate Basin Plan Headed to 2016 Finish Line

In 18 months the Central Valley Regional Water Quality Control Board will submit its approved Salt and Nitrate Basin Plan to the State Water Board for approval. The Basin Plan Amendment language for managing salts and nitrate discharges in the Central Valley will be drafted over the summer and fall of 2015. The importance of creating Basin Plan Amendment language that maintains flexibility in implementing any future program governing

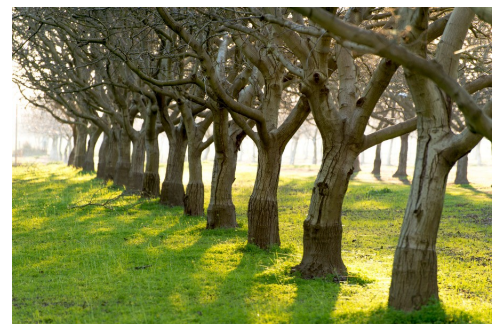
discharges of salt and nitrate to groundwater, in areas with high quality water, such as the Sacramento Valley, is essential.

The State Water Board is considering either preparation of an Implementation Plan Appendix to the existing Antidegradation Policy or an additional policy to address application of the Antidegradation Policy to groundwater.

## Where Water Quality Funding Is Spent (2015 Budget)



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**For More On the Sacramento Valley Water Quality Coalition visit: <http://www.svwqc.org>**